

Ecosystem Approaches to Management

NOAA defines the **Ecosystem Approach to Management (EAM)** as "management that is adaptive, geographically specified, takes account of ecosystem knowledge and uncertainties, considers multiple external influences, and strives to balance diverse societal objectives."

Marine ecosystems of the nation and the world are the focus of many, sometimes conflicting, human uses. Often we tend to deal with these issues one at a time (e.g., nutrient enrichment of the coastal areas, protected species management, energy development), yet many of these issues are interconnected. For example, nutrients entering the northern Gulf of Mexico from the Mississippi River are transported westward to the northwestern Gulf. There these nutrients contribute to plankton blooms that eventually cause low oxygen conditions (hypoxia). Fisheries are affected in these low oxygen areas and harmful algal blooms may occur with increasing intensity. Elsewhere, coral reefs and other sensitive habitats are affected by a range of human activities as well as naturally occurring disturbances. By moving toward an ecosystem approach to management, NOAA can take a more holistic view of these issues.



NOAA's observation systems, data management, research, analysis, and forecasts provide the building blocks for ecosystem management. In partnership with stakeholders and other management/science agencies, NOAA builds on this existing science foundation to study the interactions between ecosystem components, to develop an enhanced understanding of ecosystem structure and function, and to analyze human dependence and impact on ecosystems. Ultimately this knowledge will lead to more informed management decisions.

Source: National Marine Fisheries Service

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